

REMARKS AND AMENDMENTS

In the response set forth below, the Applicant relies on the claims previously submitted. Accordingly, no amendments to claims 18-19 and 21-35 are currently presented.

The Examiner has rejected claims 18-19 and 21-35 under 35 U.S.C. 103(a) as being anticipated by LeSuer (US 3,708,522) in view of Stewart (US 4,244,279).

The Examiner contends the LeSuer discloses a lubricant with the composition of claim 18, but does not teach its use in a vehicle hydraulic system. The Examiner contends that Stewart discloses a lubrication system for a hydrostatic transmission. Thus it would have been obvious to one of ordinary skill in the art to use the lubricant of LeSuer and the hydrostatic transmission of Stewart. Applicants respectfully traverse.

Stewart discloses hydrostatic hydraulic systems and only discloses that such systems require lubrication. Stewart does not teach, suggest, or otherwise disclose suitable chemistry for lubricating hydrostatic hydraulic systems.

LeSuer discloses a lubricant composition. As noted by the Examiner, LeSuer teaches the effectiveness of certain additive compositions in hydraulic fluids, regardless of whether LeSuer teaches the fluids themselves.

The applicant submits that the combination of LeSuer and Stewart is based on hindsight. Without hindsight a person skilled in the art would not have the expectation that such a combination would produce a composition suitable for a hydraulic system as presently claimed with suitable performance. At the date of invention (and the priority date) a person skilled in the art has an enormous variety of fluids capable of being employed in a hydraulic system. Likewise there is a large number of hydraulic systems that require lubrication. The variety of possible hydraulic fluids and different hydraulic devices is evident from a search of the patent literature. Given the large number disclosures in the prior art of fluids capable of being employed in a hydraulic system, and that neither LeSuer nor Stewart have explicit teaching indicating why a person skilled in the art would have (as

apposed to could have) combined both references, it is not evident why a person skilled in the art would combine them with the expectation that the composition of LeSuer would solve the problem of Stewart.

The problem solved by the present invention is to identify a fluid capable of being useful in the hydraulic system as presently claimed (i.e., the disclosure of Stewart). A review of Stewart indicates that there is no specific teaching or disclosure to the nature of lubricants that are useful for the hydraulic device disclosed therein. Thus a person skilled in the art would assume that all lubricants suitable for hydraulic systems would equally provide appropriate lubricant performance. As is noted from the enclosed declaration, not all fluids lubricate the presently claimed hydraulic device equally i.e., the present invention has unexpected results. The unexpected results indicate that the composition disclosed in the present method claim is capable of providing the claimed hydraulic system with oxidation and hydrolytic stability not taught, disclosed or otherwise contemplated by lubricants generically disclosed as suitable for general hydraulic devices.

Enclosed with this response is a declaration from Betsy Butke. Betsy Butke is skilled in the art of formulating lubricants for hydraulic systems. The declaration indicates that only the presently claimed hydraulic fluid is capable of passing all of the tests reported. The tests are:

(i) ASTM Method D2272 for evaluating the oxidation stability of new and in-service turbine oils having the same composition (base stock and additives) in the presence of water and a copper catalyst coil at 150 °C;

(ii) ASTM Method 2619 for determining the hydrolytic stability of petroleum or synthetic-base hydraulic fluids;

(iii) ASTM Method D943 for evaluating the oxidation stability of inhibited steam-turbine oils in the presence of oxygen, water, and copper and iron metals at an elevated temperature. The test method is also used for testing other oils such as hydraulic oils and circulating oils having a specific gravity less than that of water and containing rust and oxidation inhibitors.

The data presented by Betsy Butke that only the formulation of the invention is capable of passing all three tests. Accordingly, it is submitted that the data demonstrates unexpected performance that would not have been expected since

(a) Stewart discloses or teaches specific hydraulic fluids; and

(b) LeSuer does not teach, or suggest that lubricant compositions disclosed therein would be useful for specific types of hydraulic systems, in particular the hydraulic systems of the present invention.

Accordingly, a person of ordinary skill would not combine the teachings of LeSuer and Stewart with the expectation that such a combination would provide a hydraulic system as presently claimed with suitable performance.

In contrast, the present invention has unexpectedly discovered that the presently claimed hydraulic system is sufficiently lubricated to meet the objectives set further in the background section of Applicants' specification by employing a composition as defined in the present invention i.e., the composition comprises (i) a substantially nitrogen free dispersant and (ii) a primary metal hydrocarbyl dithiophosphate. This is confirmed by the declaration submitted by Betsy Butke.

Hence Applicants submit that the present invention is unobvious in view of Stewart and LeSuer. Applicants respectfully request to Examiner to withdraw the 35 U.S.C. 103(a) rejection and find all claims allowable.

The Examiner has also rejected:

(a) claims 18-19, 21-31 and 33-35 under 35 U.S.C. 103(a) as being anticipated by LeSuer (US 3,708,522) in view of Stewart (US 4,244,279), and further in view of Emert (US 5,498,809); and

(b) claims 18-19, 21-28 and 30-31 under 35 U.S.C. 103(a) as being anticipated by LeSuer (US 3,708,522) in view of Stewart (US 4,244,279), and further in view of Byford (US 3,697,427).

In view of the discussion above relating to LeSuer and Stewart in relation to claim 18 (the independent claim of the present invention), it is submitted that the present claims are unobvious because the Examiner is making the additional arguments by employing

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Emert and Byford to dependent claims of claim 18. Accordingly, it is submitted that if the statements above are sufficient to render claim 18 of the present invention unobvious, these rejections are obviated. Hence, Applicants respectfully request to Examiner to withdraw the 35 U.S.C. 103(a) rejection and find all claims allowable.

If for any reason the Examiner believes that a telephone conference would expedite the prosecution of this application, I can be reached at the telephone number listed below.

The Commissioner is authorized to charge any required fees or credit any overpayment of fees to The Lubrizol Corporation Deposit Account No. 12-2275.

Respectfully submitted,

THE LUBRIZOL CORPORATION

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